

WHAT IS CLAIMED IS:

1. A heat sink assembly for a circuit board component, said assembly comprising:

a heat sink base;

a frame coupled to said base; and

a cam positionable relative to said base to lock said heat sink base to the circuit board component.

2. The heat sink assembly of claim 1, wherein said frame includes a leg, said leg having an attachment end that includes a board lock.

3. The heat sink assembly of claim 1, wherein said frame includes a pair of legs and an actuator, each said leg including a channel for receiving a portion of said actuator.

4. The heat sink assembly of claim 1, wherein said frame includes an actuator comprising:

a first post and a second post, each said post having an upper end, a lower end, and a shaft portion therebetween, said lower end including a retention lug; and

a cross beam interconnecting said shaft portions of said posts.

5. The heat sink assembly of claim 1, wherein said frame includes a leg and an actuator, said leg including a board lock and said actuator including a retention lug receivable in said board lock expanding said board lock to lock said heat sink base to the circuit board component.

6. The heat sink assembly of claim 1, wherein said frame includes a board lock and an actuator, and said cam includes a lever coupled to said cam, said cam

engaging said actuator to move said actuator relative to said frame from a first position to a second position to lock said heat sink base to the circuit board component.

7. The heat sink assembly of claim 1, wherein said frame includes a board lock and an actuator, and said cam includes a lever coupled to said cam, said cam engaging said actuator to move said actuator relative to said frame from a first position to a second position to lock said heat sink base to the circuit board component, and wherein said heat sink remains in said locked position when said lever is rotated from said second position to said first position.

8. The heat sink assembly of claim 1, wherein said frame assembly includes a pair of legs and at least one cross beam interconnecting said legs, each said leg including a lower portion that includes a board lock.

9. The heat sink assembly of claim 1, wherein said frame includes an actuator comprising first and second posts and a resilient cross beam extending between said posts, and said cam includes a lever coupled to said cam to rotate said cam, said cam engaging said cross beam to bias said heat sink base toward the circuit board component when said lever is rotated to lock said heat sink base to said circuit board component.

10. A heat sink assembly for a circuit board component, said assembly comprising:

a heat sink base;

an actuator coupled to said base; and

a board lock for coupling said base to said circuit board in heat transfer relationship to the circuit board component, said board lock comprising a pair of retention barbs, wherein said actuator is configured to spread said pair of retention barbs and apply a normal force to a surface of the circuit board component when said actuator is moved from a first position to a second position.

11. The heat sink assembly of claim 10, further comprising a cam coupled to said actuator, said cam configured to move said actuator between said first and second positions.

12. The heat sink assembly of claim 10, further comprising a frame, said frame including a leg having an attachment end that includes said board lock.

13. The heat sink assembly of claim 10, further comprising a frame, said frame including a pair of legs, each said leg including a channel for receiving a portion of said actuator.

14. The heat sink assembly of claim 10, wherein said actuator comprises:

a first post and a second post, each said post having an upper end, a lower end, and a shaft portion therebetween, said lower end including a retention lug; and

a cross beam interconnecting said shaft portions of said posts.

15. The heat sink assembly of claim 10, wherein said actuator includes a retention lug receivable between said retention bars to spread said retention bars when said actuator is moved to said second position.

16. The heat sink assembly of claim 10, further comprising a cam coupled to said actuator, said cam configured to move said actuator between said first and second positions, said actuator including retention lugs received in recesses in said retention bars to hold said actuator in said second position when said cam is rotated from said second position to said first position.

17. The heat sink assembly of claim 10, further comprising a cam coupled to said actuator, wherein said cam engages a resilient beam on said actuator to bias said heat sink base toward the circuit board component.

18. A heat sink retention assembly comprising:

a heat sink base;

a frame, said frame including a board lock configured to be received in a circuit board;

an actuator received in said frame and movable with respect to said frame from an open position to a locked position wherein said board lock is activated to retain said retention assembly on the circuit board; and

a cam disposed between said frame and said actuator, said cam being rotatable from a first position to a second position to move said actuator between said open position and said locked position.

19. The retention assembly of claim 18, wherein said frame includes a pair of legs, and said actuator includes a pair of posts, each said leg including a channel for receiving a corresponding post of said actuator.

20. The retention assembly of claim 18, wherein said actuator comprises:

a first post and a second post, each said post having an upper end, a lower end, and a shaft portion therebetween, said lower end including a retention lug; and

a cross beam interconnecting said shaft portions of said posts.

21. The retention assembly of claim 18, wherein said actuator remains in said locked position when said cam is rotated from said second position to said first position.

22. The retention assembly of claim 18, wherein said actuator includes a resilient cross beam interconnecting first and second posts, said resilient cross beam biasing said frame toward the circuit board when said cam is rotated to said locked position.